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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,963	09/04/2002	Johannes Kuentler	200-1212	7007

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FORD GLOBAL TECHNOLOGIES, LLC.
SUITE 600 - PARKLANE TOWERS EAST
ONE PARKLANE BLVD.
DEARBORN, MI 48126

EXAMINER

TRAN, BINH Q

ART UNIT PAPER NUMBER

3748 --

DATE MAILED: 04/07/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/064,963

Applicant(s)

KUENSTLER ET AL.

Examiner

BINH Q. TRAN

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-12 and 14-20 is/are rejected.
- 7) ☒ Claim(s) 4, 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

This office action is in response to the amendment filed January 20, 2004.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 6-12, 14, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuchi et al. (Fukuchi) (Patent Number 5,908,019) in view of Moraal et al. (Moraal) (Patent Number 6,304,815).

Regarding claims 1, 9-11, and 17-18, Fukuchi discloses a method for controlling the starting of an internal combustion engine (1) an exhaust aftertreatment device (e.g. 16, 17, 18) with a minimal threshold temperature for proper operation, wherein the method is performed within a predetermined time period after engine start, the method comprising: increasing an electrical load on an electrical generator that is driven by the engine (e.g. See col. 5, lines 18-55); and throttling an air intake of the engine to reduce an intake manifold pressure, wherein the method is performed within a predetermined time period after engine start (e.g. See col. 3, lines 25-65; col. 6, lines 29-67; col. 7, lines 1-30). However, Fukuchi fails to disclose to reduce an intake manifold pressure to a target pressure.

Moraal teaches that it is conventional in the art, to throttle an intake valve of the engine to reduce an intake manifold pressure to a target pressure (See Fig. 1; col. 5, lines 48-67, col. 6, lines 1-48) so that to control the air fuel ratio, and to increase the temperature of the catalytic converter.

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to throttle an air intake of the engine to reduce an intake manifold pressure to a target pressure of Fukuchi, as taught by Moraal for the purpose of increasing the exhaust temperature during cold start, and further increasing the temperature of the catalytic converter to an activated temperature, so as to further reduce emissions in the exhaust gas of the internal combustion engine, and improve the performance and the efficiency of the emission device.

Regarding claim 3, Fukuchi further disclose that the electrical load of said generator comprises an electrical heater (16).

Regarding claims 6 and 14, Fukuchi further disclose that the throttling is discontinued when a gas temperature downstream of the aftertreatment device is below a threshold temperature (e.g. See col. 3, lines 25-65; col. 6, lines 29-67; col. 7, lines 1-30).

Regarding claim 7, Fukuchi further disclose the discontinuing said increasing and said throttling when an exhaust gas temperature downstream of the aftertreatment device is greater than said threshold temperature for proper operation of the aftertreatment device (e.g. See col. 3, lines 25-65; col. 6, lines 29-67; col. 7, lines 1-30).

Regarding claim 8, Fukuchi further disclose that the increasing the electrical load and said throttling are carried out only when a temperature of the engine is within a predetermined temperature interval (e.g. See col. 3, lines 25-65; col. 6, lines 29-67; col. 7, lines 1-30).

Regarding claim 19, Fukuchi further disclose that the increasing and said closing are performed with a predetermined time period after the engine is started (e.g. See col. 3, lines 25-65).

Regarding claims 12, and 20, Fukuchi further disclose that the diesel engine aftertreatment device is an oxidation catalyst (e.g. 16-18) having a minimum threshold temperature for proper operation (e.g. See col. 3, lines 25-65).

Claims 2 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuchi in view of Moraal as applied to claims 1, 3, 6-12, 14, and 17-20 above, and further in view of Taniguchi (Patent Number 5,716,586).

Regarding claims 2, and 15-16, both Fukuchi in view of Moraal discloses all the claimed limitation as discussed above except that the electrical load of said generator comprises at least one glow plug disposed in the engine.

Taniguchi teaches that it is conventional in the art, to use at least one glow plug disposed in the engine for controlling electrical load of the generator of the engine (See col. 21, lines 10-61).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to use at least one glow plug disposed in the engine for controlling electrical load of the generator of the engine of both Yamazaki and Fukuchi, as taught by Taniguchi for the purpose of controlling the temperature of the catalytic converter during warming up, so as to further reduce emissions in the exhaust gas of the internal combustion engine, and improve the performance and the efficiency of the emission device.

Allowable Subject Matter

Claims 4, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

Response to Arguments

Applicant's arguments filed January 20, 2004 have been fully considered but they are not completely persuasive. ***Claims 1-4, and 6-20 are pending.***

Applicants' s arguments with respect to claims 1-4, and 6-20 have been considered but are moot in view of the new ground(s) of rejection as discussed above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (703) 305-0245. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (703) 308-2623. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.



BT
April 02, 2004

Binh Tran
Patent Examiner
Art Unit 3748